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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/800,975	03/08/2001	Bjoern Magnussen	ELLIP-003A	2164

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EXAMINER

BUDD, MARK OSBORNE

ART UNIT PAPER NUMBER

2834

DATE MAILED: 11/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

800975

Applicant(s)

Magnussen et al

Examiner

M. Budd

Group Art Unit

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—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 7-18-02.
- ☒ This action is FINAL.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1, 3-8, 12, 13, 18, 19 and 21-41 is/are pending in the application.
- Of the above claim(s) 25-45 is/are withdrawn from consideration.
- ☒ Claim(s) 1, 3-8, 12, 13, 16-19 and 21 is/are allowed.
- ☒ Claim(s) 22-24 and 36-41 is/are rejected.
- ☐ Claim(s) is/are objected to.
- ☐ Claim(s) are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____.
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 9(9-13-02) and 10(7-18-02) ☐ Interview Summary, PTO-413
- ☒ Notice of Reference(s) Cited, PTO-892 ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948 ☐ Other _____

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Claim 24 and 36-41 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

These claims are vague and indefinite. Claims 24 and 40 lack antecedent basis for "the selected contacting portion". Also, it is unclear what is meant by "every cross-section of the resonator --- is the same but not including ---". What structure does this define? What drawing figure can it be read on? In claim 36 "the second contacting portion ---" has no antecedent basis.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 22-24 and 38-40 rejected under 35 U.S.C. 103(a) as being unpatentable over Motegi, Morizaki or Okuno in view of Yorinaga, Isayama or Mason.

Okuno (fig 9), Morizaki (figs 5&10) and Motegi (fig 2) teach the piezo-electric motor driven by a switch and an inductor which forms an L-C resonant circuit with the piezo-electric element. Note that the traveling wave generated on the resonant stator surface uses elliptical motion against the rotor to create the drive force. The references don't explicitly teach placing the drive circuitry on the piezo element or a common support with the piezo element. However, each of Yorinaga, Isayama and Mason teach such placement of circuitry to reduce transmission losses. Thus for at least this reason it would have been obvious to one of ordinary skill in the art

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to place circuit elements either on or near the piezo-electric elements of Motegi, Morizaki or Okono. It has long been held that making parts integral or separable and optimizing a known structure than (e.g. routine experimentation) are within the skill expected of the everyday practitioner. Thus using a single piece of wire to form the inductor and connector lead and selecting suitable resonator cross-sections would have been obvious to one of ordinary skill in the art.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 36, 37 and 41 rejected under 35 U.S.C. 102(a) as being anticipated by Kato or Honda.

Kato (fig 5, 15 and 17) and Honda (figs 5, 13 and 18) teach a single piezo element stack, switch, resonating circuit, resonator and reversing drive. The first and second frequencies are equal. (The same). Note "cofired" refers to a 'method' of manufacturing which does not limit an 'apparatus' claimed.

Newly submitted claims 25-35 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: see below

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution

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on the merits. Accordingly, claims 25-35 withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1, 3-8, 12, 13, 16-19, 21-24 & 36-41, drawn to a piezo electric motor, classified in class 310, subclass 323.02.
- II. Claim 25-35, drawn to a method of manufacturing a piezo electric motor, classified in class 29, subclass 25.35.

The inventions are distinct, each from the other because:

Inventions Group I and Group II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the motor of group I can be made by methods other than those of Group II, e.g. the inductor and connector could be separate. The piezo element could be only one piece not “confired” separate elements, or the piezo material could be quartz. The frequency (resonant) could be influenced by the manner of mounting in addition to the resonator shape.


Claims 1, 3-8, 12, 13, 16-19 and 21 are allowed.

Further cited of interest are Miller, Church and McMaster.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


MARK D. BUDD
PRIMARY EXAMINER
ART UNIT 212

M BUDD/pj

11/18/02